



IFWO

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/828,815

DATE: 09/28/2004

TIME: 09:58:31

Input Set : A:\00742.062004.txt

Output Set : N:\CRF4\09282004\J828815.raw

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4 <110> APPLICANT: Benjamin, Thomas L.
6 <120> TITLE OF INVENTION: Diagnosing and Treating Cancer Cells
7     Using Mutant Viruses
9 <130> FILE REFERENCE: 00742/062004
11 <140> CURRENT APPLICATION NUMBER: 10/828,815
12 <141> CURRENT FILING DATE: 2004-04-21
14 <150> PRIOR APPLICATION NUMBER: 10/765,520
15 <151> PRIOR FILING DATE: 2004-01-27
17 <150> PRIOR APPLICATION NUMBER: 10/316,532
18 <151> PRIOR FILING DATE: 2002-12-10
20 <150> PRIOR APPLICATION NUMBER: 09/812,471
21 <151> PRIOR FILING DATE: 2001-03-19
23 <150> PRIOR APPLICATION NUMBER: 09/988,117
24 <151> PRIOR FILING DATE: 2001-11-16
26 <150> PRIOR APPLICATION NUMBER: 60/339,140
27 <151> PRIOR FILING DATE: 2001-12-10
29 <150> PRIOR APPLICATION NUMBER: 09/812,633
30 <151> PRIOR FILING DATE: 2001-03-19
32 <150> PRIOR APPLICATION NUMBER: 60/216,723
33 <151> PRIOR FILING DATE: 2000-07-07
35 <160> NUMBER OF SEQ ID NOS: 53
37 <170> SOFTWARE: FastSEQ for Windows Version 4.0
39 <210> SEQ ID NO: 1
40 <211> LENGTH: 1005
41 <212> TYPE: PRT
42 <213> ORGANISM: Homo Sapiens
44 <400> SEQUENCE: 1
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47 Glu Pro Ala Glu Leu Gly Gly Asp Ala Ser Glu Glu Asp His Pro Gln
48           20           25           30
49 Val Cys Ala Lys Cys Cys Ala Gln Phe Thr Asp Pro Thr Glu Phe Leu
50           35           40           45
51 Ala His Gln Asn Ala Cys Ser Thr Asp Pro Pro Val Met Val Ile Ile
52           50           55           60
53 Gly Gly Gln Glu Asn Pro Asn Asn Ser Ser Ala Ser Ser Glu Pro Arg
54 65           70           75           80
55 Pro Glu Gly His Asn Asn Pro Gln Val Met Asp Thr Glu His Ser Asn
56           85           90           95
57 Pro Pro Asp Ser Gly Ser Ser Val Pro Thr Asp Pro Thr Trp Gly Pro
58           100          105          110
59 Glu Arg Arg Gly Glu Glu Ser Ser Gly His Phe Leu Val Ala Ala Thr
60           115          120          125

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61 Gly Thr Ala Ala Gly Gly Gly Gly Gly Leu Ile Leu Ala Ser Pro Lys
62      130                      135                      140
63 Leu Gly Ala Thr Pro Leu Pro Pro Glu Ser Thr Pro Ala Pro Pro Pro
64 145                      150                      155                      160
65 Pro Pro Pro Pro Pro Pro Pro Pro Gly Val Gly Ser Gly His Leu Asn
66      165                      170                      175
67 Ile Pro Leu Ile Leu Glu Glu Leu Arg Val Leu Gln Gln Arg Gln Ile
68      180                      185                      190
69 His Gln Met Gln Met Thr Glu Gln Ile Cys Arg Gln Val Leu Leu Leu
70      195                      200                      205
71 Gly Ser Leu Gly Gln Thr Val Gly Ala Pro Ala Ser Pro Ser Glu Leu
72      210                      215                      220
73 Pro Gly Thr Gly Thr Ala Ser Ser Thr Lys Pro Leu Leu Pro Leu Phe
74 225                      230                      235                      240
75 Ser Pro Ile Lys Pro Val Gln Thr Ser Lys Thr Leu Ala Ser Ser Ser
76      245                      250                      255
77 Ser Ser Ser Ser Ser Ser Ser Gly Ala Glu Thr Pro Lys Gln Ala Phe
78      260                      265                      270
79 Phe His Leu Tyr His Pro Leu Gly Ser Gln His Pro Phe Ser Ala Gly
80      275                      280                      285
81 Gly Val Gly Arg Ser His Lys Pro Thr Pro Ala Pro Ser Pro Ala Leu
82      290                      295                      300
83 Pro Gly Ser Thr Asp Gln Leu Ile Ala Ser Pro His Leu Ala Phe Pro
84 305                      310                      315                      320
85 Ser Thr Thr Gly Leu Leu Ala Ala Gln Cys Leu Gly Ala Ala Arg Gly
86      325                      330                      335
87 Leu Glu Ala Thr Ala Ser Pro Gly Leu Leu Lys Pro Lys Asn Gly Ser
88      340                      345                      350
89 Gly Glu Leu Ser Tyr Gly Glu Val Met Gly Pro Leu Glu Lys Pro Gly
90      355                      360                      365
91 Gly Arg His Lys Cys Arg Phe Cys Ala Lys Val Phe Gly Ser Asp Ser
92      370                      375                      380
93 Ala Leu Gln Ile His Leu Arg Ser His Thr Gly Glu Arg Pro Tyr Lys
94 385                      390                      395                      400
95 Cys Asn Val Cys Gly Asn Arg Phe Thr Thr Arg Gly Asn Leu Lys Val
96      405                      410                      415
97 His Phe His Arg His Arg Glu Lys Tyr Pro His Val Gln Met Asn Pro
98      420                      425                      430
99 His Pro Val Pro Glu His Leu Asp Tyr Val Ile Thr Ser Ser Gly Leu
100      435                      440                      445
101 Pro Tyr Gly Met Ser Val Pro Pro Glu Lys Ala Glu Glu Glu Ala Ala
102      450                      455                      460
103 Thr Pro Gly Gly Gly Val Glu Arg Lys Pro Leu Val Ala Ser Thr Thr
104 465                      470                      475                      480
105 Ala Leu Ser Ala Thr Glu Ser Leu Thr Leu Leu Ser Thr Ser Ala Gly
106      485                      490                      495
107 Thr Ala Thr Ala Pro Gly Leu Pro Ala Phe Asn Lys Phe Val Leu Met
108      500                      505                      510
109 Lys Ala Val Glu Pro Lys Asn Lys Ala Asp Glu Asn Thr Pro Pro Gly

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110          515          520          525
111 Ser Glu Gly Ser Ala Ile Ser Gly Val Ala Glu Ser Ser Thr Ala Thr
112      530          535          540
113 Leu Met Gln Leu Ser Lys Leu Met Thr Ser Leu Pro Ser Trp Ala Leu
114 545          550          555          560
115 Leu Thr Asn His Phe Lys Ser Thr Gly Ser Phe Pro Leu Pro Leu Cys
116          565          570          575
117 Ala Arg Ala Leu Gly Ala Ser Pro Ser Glu Thr Ser Lys Leu Gln Gln
118          580          585          590
119 Leu Val Glu Lys Ile Asp Arg Gln Gly Ala Val Ala Val Thr Ser Ala
120          595          600          605
121 Ala Ser Gly Ala Pro Thr Thr Ser Ala Pro Ala Pro Ser Ser Ser Ala
122      610          615          620
123 Ser Ser Gly Pro Asn Gln Cys Val Ile Cys Leu Arg Val Leu Ser Cys
124 625          630          635          640
125 Pro Arg Ala Leu Arg Leu His Tyr Gly Gln His Gly Gly Glu Arg Pro
126          645          650          655
127 Phe Lys Cys Lys Val Cys Gly Arg Ala Phe Ser Thr Arg Gly Asn Leu
128          660          665          670
129 Arg Ala His Phe Val Gly His Lys Ala Ser Pro Ala Ala Arg Ala Gln
130          675          680          685
131 Asn Ser Cys Pro Ile Cys Gln Lys Lys Phe Thr Asn Ala Val Thr Leu
132          690          695          700
133 Gln Gln His Val Arg Met His Leu Gly Gly Gln Ile Pro Asn Gly Gly
134 705          710          715          720
135 Thr Ala Leu Pro Glu Gly Gly Gly Ala Ala Gln Glu Asn Gly Ser Glu
136          725          730          735
137 Gln Ser Thr Val Ser Gly Ala Gly Ser Phe Pro Gln Gln Gln Ser Gln
138          740          745          750
139 Gln Pro Ser Pro Glu Glu Glu Leu Ser Glu Glu Glu Glu Glu Asp
140          755          760          765
141 Glu Glu Glu Glu Glu Asp Val Thr Asp Glu Asp Ser Leu Ala Gly Arg
142          770          775          780
143 Gly Ser Glu Ser Gly Gly Glu Lys Ala Ile Ser Val Arg Gly Asp Ser
144 785          790          795          800
145 Glu Glu Ala Ser Gly Ala Glu Glu Glu Val Gly Thr Val Ala Ala Ala
146          805          810          815
147 Ala Thr Ala Gly Lys Glu Met Asp Ser Asn Glu Lys Thr Thr Gln Gln
148          820          825          830
149 Ser Ser Leu Pro Pro Pro Pro Pro Pro Asp Ser Leu Asp Gln Pro Gln
150          835          840          845
151 Pro Met Glu Gln Gly Ser Ser Gly Val Leu Gly Gly Lys Glu Glu Gly
152          850          855          860
153 Gly Lys Pro Glu Arg Ser Ser Ser Pro Ala Ser Ala Leu Thr Pro Glu
154 865          870          875          880
155 Gly Glu Ala Thr Ser Val Thr Leu Val Glu Glu Leu Ser Leu Gln Glu
156          885          890          895
157 Ala Met Arg Lys Glu Pro Gly Glu Ser Ser Ser Arg Lys Ala Cys Glu
158          900          905          910

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159 Val Cys Gly Gln Ala Phe Pro Ser Gln Ala Ala Leu Glu Glu His Gln
160      915                      920                      925
161 Lys Thr His Pro Lys Glu Gly Pro Leu Phe Thr Cys Val Phe Cys Arg
162      930                      935                      940
163 Gln Gly Phe Leu Glu Arg Ala Thr Leu Lys Lys His Met Leu Leu Ala
164 945                      950                      955                      960
165 His His Gln Val Gln Pro Phe Ala Pro His Gly Pro Gln Asn Ile Ala
166      965                      970                      975
167 Ala Leu Ser Leu Val Pro Gly Cys Ser Pro Ser Ile Thr Ser Thr Gly
168      980                      985                      990
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173 <210> SEQ ID NO: 2
174 <211> LENGTH: 16080
175 <212> TYPE: DNA
176 <213> ORGANISM: Homo sapiens
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181 tactagggtta ggaagctctg gagcctacag cttgaggaga agccatcggt caagtcagtc 180
182 aatagcaaaa cctcactctt ctccctctca gaactcctgt tccaaatgat cctatgttaa 240
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184 gactcttaag aaccagacaa tgacaaagac acaagcccca gcctacggat aggcaaaatg 360
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211 gagggaaagg cctggccaca cacttcgcag gcctttctgc tgetgctctc tectggctcc 1980
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